

## Syphilis

Agent: *Treponema pallidum* (bacteria)

Mode of Transmission: Through sexual intercourse, from mother to child through the placenta or during birth, and via blood transfusion from an infected donor in the early stage of disease.

Signs/Symptoms: The primary stage is characterized by a painless sore (chancre). The secondary stage includes a skin rash and/or lesions of the mucous membranes. A latent period follows with no clinical symptoms. If left untreated, late latent syphilis occurs. The central nervous system, skin, bones, eyes, and heart may become sufficiently damaged, causing disability or death. Disturbances in vision should be addressed immediately, as vision change or blindness related to syphilis may progress rapidly and is irreversible. Ocular syphilis may occur at any stage of disease.

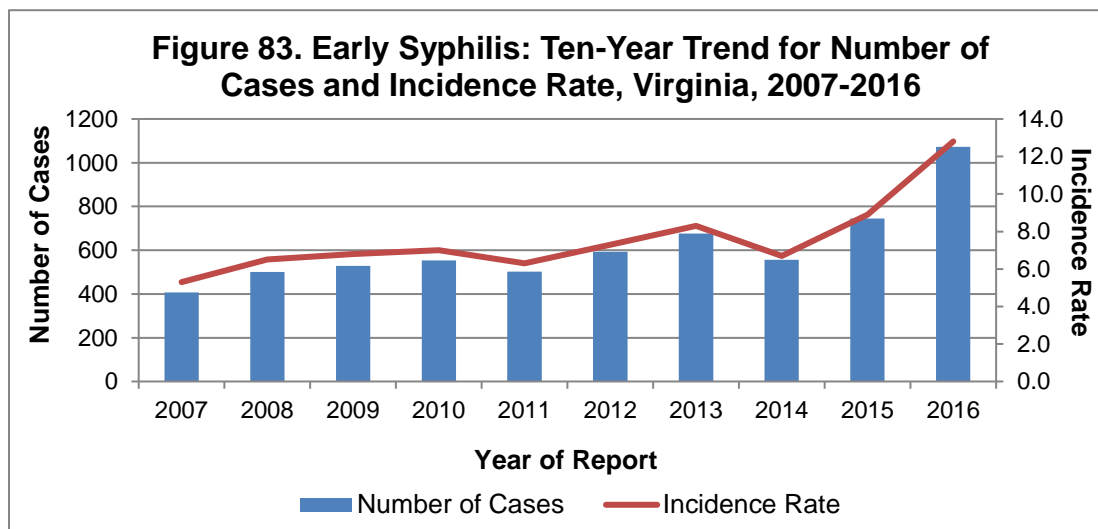
Prevention: Preventive measures include safe sexual practices, screening of all women during early pregnancy to prevent infection of infants, and treatment of exposed partners.

Other Important Information: In 2016, there was a 74% increase in reported early syphilis in Virginia compared to the prior five-year average. Nationwide, early syphilis is on the rise; while cases are still disproportionately diagnosed among men who have sex with men (MSM), diagnoses among women of childbearing age (and, subsequently, congenital syphilis diagnoses among infants) have been increasing as well.

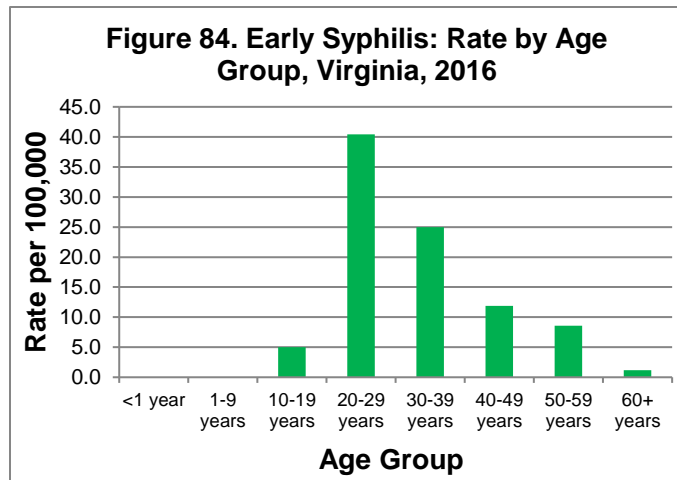
Early Syphilis: 2016 Data Summary	
Number of Cases:	1,072
5-Year Average Number of Cases:	614.4
% Change from 5-Year Average:	+74%
Incidence Rate per 100,000:	12.8

### Early Syphilis

Early syphilis refers to the symptomatic primary and secondary stages of syphilis, as well as asymptomatic early latent syphilis. In 2016, 1,072 early syphilis cases were reported in Virginia. This is a 74% increase from the prior five-year average of 614.4 cases (Figure 83). It is also the most cases reported in any year since 1995.



The highest incidence rate of early syphilis continues to occur in the 20-29 year age group (40.4 per 100,000), followed by the 30-39 year age group (25.0 per 100,000) (Figure 84). The incidence rate in the black population (35.4 per 100,000) was more than seven times the incidence rate observed in the white population (4.6 per 100,000). The incidence rate among males (22.2 per 100,000) was more than six times that of the rate observed in females (3.6 per 100,000). Most early syphilis cases are diagnosed in males, and particularly in men who have sex with men (MSM). In 2016,



71% of males diagnosed with early syphilis occurred among MSM. While 85% of all cases were diagnosed in males, the early syphilis rate for females increased more rapidly than for males in 2016. The highest incidence of early syphilis occurred in the eastern region (24.7 cases per 100,000), followed by the central region (20.1 cases per 100,000), northern region (9.9 cases per 100,000), southwest region (3.2 cases per 100,000) and northwest region (3.2 cases per 100,000). For incidence rates by locality, please see the map below.

## Congenital Syphilis

Congenital syphilis is a condition affecting an infant whose mother had untreated or inadequately treated syphilis at delivery. Congenital syphilis may also be diagnosed after a mother with untreated syphilis experiences a miscarriage or stillbirth. Diagnosis is based on maternal serologic testing and treatment; an infant who shows no clinical symptoms of congenital syphilis whose mother was not sufficiently treated in the CDC-designated timeline is counted as a case. Seven cases of congenital syphilis were reported in Virginia in 2016. Two to three cases per year were reported from 2013-2015, before which there had not been more than one case reported per year since 2009. The recent increase in early syphilis diagnoses in women of reproductive age, and subsequent increase in congenital syphilis, is alarming. Follow-up for women of reproductive age who have sex with men is extremely important in preventing congenital syphilis. Partner services for men who have sex with women also play an important role in congenital syphilis prevention. The Centers for Disease Control and Prevention considers each case of congenital syphilis in the U.S. to be a sentinel event representing a public health failure.

## Late Latent Syphilis

Late latent syphilis is diagnosed when the patient has no symptoms of primary or secondary syphilis and no evidence that infection was acquired within the preceding 12 months. During the late latent stage of syphilis, the patient is typically no longer infectious but may develop serious sequelae, including serious neurological symptoms, irreversible vision change or blindness, and progression of infection to the heart or other vital organs. In 2016, 287 cases of late latent syphilis were reported in Virginia.

## Syphilis, Early Stage, Incidence Rate by Locality Virginia, 2016

